DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-027389

Address: 333 Burma Road **Date Inspected:** 30-Mar-2012

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: CWI Present: Yes No As noted below **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A

N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: SAS OBG**

Summary of Items Observed:

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

8W PP70.5 W2-LSE (Interior)

This QA Inspector randomly observed ABF welder Eric Sparks perform the Shielded metal Arc Welding (SMAW) process in the 3G vertical position on the East Longitudinal Stiffener (LSE) at 8W PP70.5 W2 on the interior of the OBG. QC Inspector Steve Jensen was present to monitor the welding and the parameters as they apply to ABF-WPS-D1.5-1012-3. Mr. Jensen informed this QA Inspector that the pre-heat temperature was verified and within compliance. This QA Inspector noted the use of the heat induction blankets and verified the temperatures to be within the acceptable ranges. The welder was observed utilizing the E9018-H4R electrodes required by this WPS and drew amperage of 138. On a subsequent observation, the welder was observed cleaning the work between passes while employing a small disc grinder blending the start/stop edges for a smooth transition. This QA Inspector made subsequent observations throughout the shift and noted that the work was ongoing and appeared to be in general conformance with the contract documents.

8W PP61.5 W2-DAH (Interior)

On random observations, this QA Inspector observed ongoing SMAW in the 4G overhead position on the Deck Access Hole (DAH) at 8W PP61.5 W2 on the interior of the OBG performed by ABF welder Mike Jimenez

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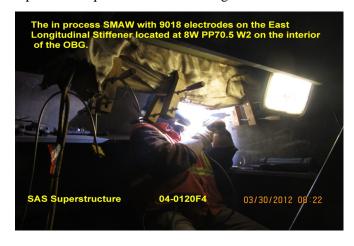
(ID 4671). Mr. Jimenez was noted as grinding and blending the edges between passes utilizing a small disc grinder, brushes and compressed air. QC Inspector Steve Jensen Was observed monitoring the welding and the parameters as well as measuring the inter-pass temperature as they pertain to ABF-WPS-D1.5-1012-3. This QA Inspector verified that 9018-H4R electrodes were in use and that the baking oven was on and at the correct temperature. The parameters and the work at this location appeared to be in compliance with the WPS and the contract specifications and is ongoing.

9E PP84.5 E5-LSE (Interior)

This QA Inspector randomly observed ABF welder Todd Jackson grinding and blending the completed work on the LSW located at 9E PP84.5 E5 on the interior of the OBG. The welder was observed utilizing a small disc grinder to blend the excessive reinforcement to a near flush surface condition. Upon completion of the clean-up, ABF welding personnel were observed transferring equipment to 8E PP70.5 E2 also on the interior of the OBG to begin work on the longitudinal stiffeners at that location. This QA Inspector noted that no welding had commenced by the end of the shift. This QA Inspector randomly observed Quality Control (QC) Inspector John Pagliero perform a Magnetic Particle (MT) inspection of the East Longitudinal Stiffener (LSE) and the Transverse Stiffener (TS) at 9E PP84.5 E5 on the interior of the OBG. It was noted that Mr. Pagliero found no rejectable indications. Mr. Pagliero also performed an ultrasonic inspection (UT) of the welds and found them to be acceptable. This QA Inspector performed a MT Inspection on the LSE and the TS at the same location on the interior of the OBG. This QA Inspector performed the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications. This QA Inspector performed a UT inspection on approximately 10% of the welds on the LSE and the TS at 9E PP84.5 E5 on the interior of the OBG. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

Summary of Conversations:

This QA inspector met with QC inspectors John Pagliero, Jesse Cayabyab and Sal Merino to coordinate inspections required and welder assignments.





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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer